

INFRASTRUCTURE

- Grid – Going to SLF 5, doubled capacity in GPFarm
- Bluearc - performance good, expanding and consolidating Jan 20
- Enstore – have admin access, changed 2011raw data owner to minosraw
- Nucomp – Soudan network upgraded, jobsub reunification underway
- GPCF – have minos-slf4 minos-slf5
- Servers – stable, ongoing ganglia and aklog issues
- Control Room – remote shifts
- NDTF – Near Detector Transition Force (Minerva to Minos transition)

EXECUTIVE SUMMARY

- Young Minos issues:
 - Getting minos54 back from NOvA
 - scaling to 5000 Grid jobs will ramp up after Condor 7.4 upgrade
- Raw Data file ownership
 - 2011 directories changed from buckley to minosraw
 - will modify the files soon
- Bluearc issues
 - Moving to new disks, 170 TB physical capacity (was 130) Jan 20
 - Initial copies are done, touch-ups run in under 2 hours
 - This removes the Satabeast from Bluearc – move to Enstore or Dcache ?
 - Will keep /minos/data2 symlink to /minos/data (stop using data2 path)
 - Hoping to triple disk/\$ ratio via Bluearc Data Migration
 - Most of 10 TB of mcimport/STAGE is archived, thanks Adam !
- Scheduled downtime 2011 Jan 20 all day for kernels, PNFS, Fermigrid, Bluearc
- Soudan network upgrade is complete, we have new routers now
- Planning for Condor 7.4 upgrade and jobsub script Reunification with IF

GRID

- We continue to reach peaks of 2000 running jobs, but quiet recently
 - still want 5000, will scale up when we have Condor 7.4
- Still using wrapper for condor_rm, condor_hold
 - To prevent SAZ authentication overload
 - Condor 7.4 upgrade will fix this internally, soonish
- CPN - 3.9 million locks served to Minos
- Last Fermigrid workers are moving to SLF 5.4 Jan 20
 - There will be no more SLF 4 Fermigrid workers

Bluearc

- /minos/data expansion 2011 Jan 20
 - Copying files from /minos/app, minos/data, minos/data2 to new disk
 - The old disks will remain available for a couple of weeks, just in case
 - Net gain of at least 30 TB
 - Retiring the original Satabease (data, app) from Bluearc
 - New mounts will be /minos/data and /minos/app
 - temporary data2 and scratch compatibility symlinks
- Performance remains good

Enstore

- Changed owner of 2011 raw data directories from buckley to minosraw
- Will change all existing file ownerships this month, and arrange for new files to be owned by minosraw
- New LTO4GS robot in GCC for non-CMS customers.
 - Existing tapes are being moved there.
 - We will continue to keep the raw data Vault copies in an alternate library

NUCOMP

- GPCF hardware is installed and running.
- Soudan networking upgrade hardware was installed
- 600 cores of new Fermigrid processing is deployed, our quota will increase
- Dennis Box is working on a shared jobsub to replace minos_jobsub
- REX will take over Condor support from Ryan Patterson soon (at 7.4)
- Next NUCOMP meeting around Jan 19 ? Not yet scheduled.

GPCF

- Initial configuration for GPCF
 - 14 batch hosts x 16 slots
 - /scratch/minos is 10 TB NFS served
 - Interactive systems are Oracle VM virtual machines
- gpsn01 – shared Grid submission node is available for gpcf submissions
- minos-slf5 = minosgpvm01 runs SLF 5.4 , give it a try !
- minos-slf4 = minosgpvm02 runs SLF 4.7 32 bit kernel, replaces minos26
- nova01/2 virtual interactive systems having I/O performance issues
 - Bluearc data was originally under 10 MB/sec, still under 30
 - Being investigated
 - Not unique to VM's. minos26 does even worse (4 to 8 MB/sec)

Minos Servers

- minos26 will be powered off soon
 - use minos-slf4 for access to a32bit SLF4
- Requested minos54 back from Nova Jan 20 - INC000000065778
- Ganglia – still not available on ifora1/2, not supported by FEF
- Need aklog for SLF 5 , this is coming soon
 - aklog has been ported, Nagy is integrating this with kinit
 - we are waiting for an RPM to test
- SLF5 plans
 - will move to retire SLF 4 when we have stable kcron/aklog
 - Control Room already runs SLF 5
- Will request management ability to kill non-root processes on Cluster

Control Room

- First real remote shifts from BNL night shift Jan 3-6 2011
 - A great effort by many, Brett and Mary especially.
 - Ricardo Gomes will be at Fermilab later in January to work on this.
 - Documentation is being written, see Minos DocDB 7789 by Brett Viren
 - We should generate project principals for each remote control room.
 - The policy for future such shifts is still being formulated.
- Minerva needs to run remote shifts this spring.
- I'd like to see a web-based Big Green Button, to allow multiple clients
- I'd like to switch the ACNET consoles to SSH tunnels (AD supports this)

Near Detector Task Force

- Planning handover of the Near Detector to Minerva by 2012
- I drafted a document for offline and Control Room issues
 - Minerva DocDB 5600 ; Minos DocDB 7787
- Minerva will need to take over
 - Calibration
 - Batch processing
 - Data Quality
 - Data Handling
 - Simulation
 - Code maintenance
 - and more – we are just getting started
- Task force met with the Directorate 2010 Dec 2
- Minerva is counting on doing remote shifts when they are in charge.